Demolition Excavator
↗ Working range indicator

↗ Application

- Customer-specific OEM solution for indicating the allowed working area of demolition excavators for various attachments

↗ Advantages

- Reduced risk of accidents from tipping
- Increased productivity through maximizing the machine's utilization
- Reduction of possible operating errors through visual and acoustic support
- Usage monitoring with internal data logger

↗ System Features

General:
- Real-time display of the precise position of demolition arm and tool
- Monitors machine across all operating conditions
- Indication of the allowed working area via dynamic working range shapes
- 7" capacitive touch display
- Simple, icon-based menu for enhanced usability
- Multiple boom configurations with automatic boom detection
- Acoustic and visual warning to the operator when working near the cab due to potentially falling debris
- Warning when chassis tilt exceeds an allowed inclination
- Optional: support of a camera to show the attachment during operation

Service & Diagnostics:
- Integrated data logger (event logger, cyclic logger, parameter logger)
- Machine geometry and working areas for attachments are adaptable via parameter file
- Display-guided sensor adjustment
- Password-protected service menu: Up-/download log files, adjustment of sensors, display fault memory…

↗ System Components

1   vSCALE C3-2 Console:

- 7" capacitive touch display with integrated controller
- Operating temperature: -30…+65°C
- EMC acc. to EN 12895, EN 13309 and EN ISO 149982
- Protection rating: IP6K5 and IP6K6 according to ISO 20653
- Communication: CANopen
- Power Supply: 9…36 VDC

System Components

2   gSENS WGX Inclination Sensor:

- Measuring range: max. 360°C
- Accuracy: ±0.10°
- Resolution: 0.01°
- Supply Voltage: 10…30 VDC
- Operating temperature: -40…+85°C
- Protection rating: IP68/IP69K
- Interface: CANopen (CAN-IN / CAN-OUT)

3   CTL-S700 Controller:

- For use in safety-critical applications (acc. to IEC/EN 61508:2015 SIL 2, EN ISO 13849:2015 PL d and EN 62061:2005 SILCL 2)
- 32-Bit Tri-Core processor
- Up to 64 inputs and 56 outputs
- 4 CAN interfaces
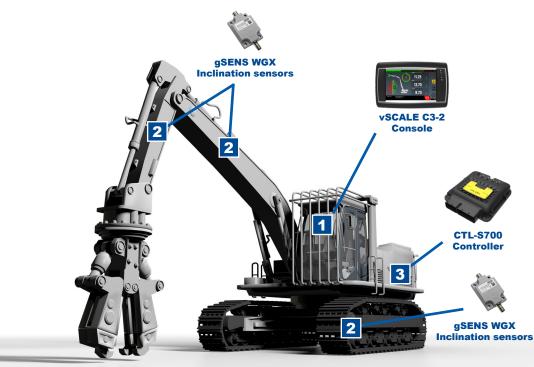- Programmable acc. to IEC 61131-3 with CODESYS 3.5

System Options

4   Camera:

- Hardwired camera with horizontal or vertical orientation
- Operating temperature: -40°C…+85°C
- Protection rating: IP68 / IP69k
- Communication: NTSC

System Layout

gSENS WGX
Inclination sensors

2

2

vSCALE C3-2
Console

1

CTL-S700
Controller

3

2

gSENS WGX
Inclination sensors